Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

August 18, 2005

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100 Cambridge Street, Suite 1020
Boston, MA 02114

Re: Reply Comments to Notice of Inquiry/Proposed Revisions to Biomass Regulations

Dear Mr. Bernstein:

Thank you for the opportunity to provide the Division of Energy Resource (DOER or "the Division") and the Department of Environmental Protection (DEP) with the opportunity to provide reply comments on the above referenced Notice of Inquiry (NOI). These comments build upon those initial written and oral comments previously submitted in this inquiry.

We would like to reiterate our previous position that any modification to the biomass regulations associated with the Massachusetts renewable standard must:

- be consistent with legislative intent and language,
- increase the share of renewable energy serving Massachusetts ratepayers by adding new renewable generation,
- provide an incentive for the development of new renewable generation, and
- ensure a stable, predictable regulatory environment for investment in creating incremental renewable generation.

In summary, UCS maintains our strong opposition to any regulatory action, past or future, that results in generation from existing biomass facilities qualifying to meet the current RPS target unless that generation is truly incremental to historical generation. We are greatly troubled by the negative impact that the proposed regulatory language will clearly have on the ability or desire of developers of new renewable generation to go forward with their projects, as well as undermine the investments already made since passage of the Act.

Our additional comments here are aimed toward providing DOER with further suggestions as to how to achieve these goals, and avoid the pitfalls that have resulted from the current case-by-case determination of eligibility while ensuring biomass facilities are low emission and use advanced combustion technology. Establishing clear requirements for eligibility as "low-emission, advanced biomass power conversion technologies" is desirable from the perspective of both the Division and biomass generators. While doing so, we strongly urge DOER and DEP to reject those aspects of the approach proposed in the NOI that fail to preserve the legislative intent of encouraging new renewable generating capacity in the region and to seek a solution that

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preserves the integrity of the statutory requirement to provide "a minimum percentage from new renewable energy generation sources" by an "additional" increasing target percentage.

Prior DOER rulings cited in the NOI have resulted in a considerable volume of existing biomass generation being deemed eligible. As a result, the specter that most of the incremental statutory demand for new renewables to meet the Massachusetts RPS could be met by such existing generation is chilling the environment for investment in and contracting for new renewable generation. These rulings and the NOI language have also created the potential for most of the remaining existing biomass generation in the region to be deemed eligible.

The RPS Statute Provides Sufficient Means for Biomass Plants to Participate

The RPS statute provides two mechanisms for biomass plants to participate in contributing towards the target percentage for new renewable energy generation sources. First, facilities built after 1997 can generate eligible RECs. And second, pre-1998 facilities that increase their generation above their baseline production can generate RECs for that increment. Both types of participation must meet the low emission, advanced technology requirement and should continue to do so according to the regulatory changes to the requirements for these conditions (we comment more specifically on these below). The statute provides for no further means of biomass participation.

DOER Erred in Allowing Existing Biomass Generation to be Eligible

Through its advisory and qualification rulings, DOER has erred in allowing retooled pre-1998 biomass to generate eligible certificates for *all* of their generation. Each ensuing ruling has continued down a slippery slope. First, DOER ceased to require that a retooled biomass facility have a "vintage" generation reflecting the level of historical production that would not be considered new. Subsequently, DOER lowered the standard for low-emission, advanced biomass power conversion technologies to reflect nothing more than technology to lower emissions of a single pollutant, which is contrary to legislative intent.

DOER Must Act to Limit the Degree to Which Massachusetts Ratepayers Fund the Cleanup of the Existing Biomass Fleet

Reducing emissions from the existing New England biomass fleet certainly has merits from a policy perspective. However, any approach that allows the existing biomass fleet's historical production to be deemed eligible has the effect of burdening Massachusetts ratepayers, in a virtually unbounded manner, with the expense of cleaning up (potentially) the entire regional fleet of existing biomass generation. Such an approach does absolutely nothing to contribute to the RPS statutory goal to "provide a minimum percentage of kilowatt-hours sales to end-use customers in the commonwealth from new renewable energy generating sources."

DOER conducted a baseline study to meet its statutory obligation to "determine the actual percentage of kilowatt-hours sales to end-use customers in the commonwealth which is derived from existing renewable energy generating sources." That baseline study concluded that the historical contribution of biomass resources to the sales to Massachusetts' end-use customers

was 0.4% of load (none of which could be deemed generated by low-emission, advanced biomass conversion technologies). There is simply no justification in the RPS statute to burden Massachusetts ratepayers with the cleanup of existing generation located in other states that historically served load primarily in Maine, New Hampshire or Vermont, out of proportion to Massachusetts' historical reliance upon those plants. If such cleanup does not also result in an increase in new renewable generation supplying Massachusetts customers, then such cleanup was never intended under the RPS statute and the costs should be left to others to cover.

Potential Generation from Existing Generation With Retooling Advisory Rulings and Statements of Qualification Could Displace Incremental RPS Demand

The impact of DOER's Biomass Advisory Rulings and Statements of Qualification on biomass retooling to date cannot be understated. According to DOER's 2003 Annual Compliance Report, the total RPS MWh obligation in 2005 is approximately 1.0 million MWh, and in 2009, would be approximately 2.1 million MWh. According to our analysis, legitimately incremental generation from existing biomass plants already in receipt of Statements of Qualification *with vintage waivers* could exceed 0.5 million MWh, with potential roughly 0.5 million more MWh of incremental generation beyond the1995 to 1997 baseline from plants not yet meeting the low-emission, advanced biomass power conversion technologies.[1]

In addition to the truly incremental generation and potential generation in excess of historic generation, existing biomass facilities that have already received retooling Advisory Rulings and Statements of Qualification could potentially generate in excess of an additional 1 million MWh of eligible RECs. By our estimate, the potential impact of DOER's retooling rulings could therefore represent enough potential production to meet virtually the entire RPS incremental demand from 2005 through 2009. Yet none of this generation would represent increased generation. The implications are stark, and serve to explain the concern among developers of new wind and greenfield biomass plants reflected in written and oral comments in this inquiry. This result suggests to the market that, for practical purposes, there is no more need for new renewables until after DOER affirms the 1% per year increases in 2010 and beyond.

DOER Must Address the Problems Caused by its Advisory Rulings and Statements of Qualification To Date

It seems clear that DOER is, through this NOI, on the path towards altering the basis upon which earlier advisory rulings have allowed existing renewable generation to be deemed eligible. While we have argued that these decisions were faulty, we do not suggest that it would be appropriate to overturn these decisions. Doing so would send a signal to the market that DOER's rulings are subject to being revisited, and exacerbate the impression of regulatory instability already evident. If developers and investors cannot rely upon a DOER Advisory Ruling as a basis for putting their capital at risk, then the ensuing regulatory uncertainty may further chill the very investment the RPS is meant to incentivize. However, if the statutory goals are to be met, the DOER must:

[1] These plants, that generated either no electricity in the 1995 to 1997 baseline period, or operated at a reduced level, could apply for vintage waivers if they were to meet the guidelines established by DOER for low-emission, advanced biomass conversion technologies.

- limit the damage to the market these rulings created by establishing an expiration date on the validity of Advisory Rulings,[2] along the lines proposed by DOER in the NOI, and
- correct the problems caused by the decisions at the programmatic level.

To achieve the second objective, DOER should adjust the RPS targets upwards to reflect the amount of generation applied to RPS compliance from these "grandfathered" existing facilities that have received DOER "retooling" Statements of Qualification or Advisory Rulings. This adjustment could be made on a one-time basis, once the amount of eligible generation that successfully retooled (consistent with the advisory rulings) before the expiration date can be determined. This amount should be added to amended targets at the earliest possible date in order to provide the market with adequate notice to respond, but should take effect no later than 2009. By doing so, DOER can assure that the ultimate minimum increments of new renewable generation required by statute have been met, albeit on a delayed basis.

For example, based on the estimate discussed above, if the full 1 million MWh potential from plants that have received retooling Advisory Rulings from DOER come to fruition, an increase of almost 2% to the RPS targets would be required. In other words, a 2009 target of almost 6% rather than 4% would be necessary to ensure that "an additional" 4% of sales "from new renewable energy generating sources" was in place by 2009, as required by statute.

DOER Should Limit and Account for Existing Biomass Plants Participating in the RPS

UCS is strongly opposed to any proposed changes to the RPS that would result in any existing biomass plants being eligible to meet the target set for new renewable energy for the reasons we describe in our initial comments and those presented here in our reply comments. However, in the event that DOER chooses to consider continued inclusion of existing facilities in the program, it is incumbent upon the Division to ensure that these facilities:

- closely resemble new renewable generation,
- meet the advanced technology and low emission standards applicable to new biomass generation,
- are not a substitute for new renewable generation as defined in the statue, and
- do not unfairly burden Massachusetts ratepayers.

The only acceptable way that DOER could include generation from existing biomass facilities would be to:

- require that existing biomass facilities repower through wholesale replacement of the prime mover, with the new capital investment constituting 80% (or more) of the total value of the plant and equipment (exclusive of its property and intangible assets),[3]

[2] UCS believes that the expiration date should be by the start of 2007, so that when DOER commences with its 2007 review on increases in the targets post-2009, it will know precisely the effect of these rulings and the commensurate adjustments necessary to meet the statutory intent.

[3] This re-powering standard notably is reflected in the draft Rhode Island RES regulations.

- account for the fact that that these facilities were previously in the generation baseline and do not constitute an increase in renewable generation as required by the act. DOER must adjust the overall RPS target to reflect both the target for new renewables established by the statute ***plus*** the generation from repowered biomass plants used for compliance with the RPS such as described above for "grandfathered" plants, and
- constrain in some way the amount of generation from repowered plants that can become eligible. To not do so would unfairly put an unconstrained burden on Massachusetts ratepayers for the repowering of existing biomass plants as described previously. DOER could set in advance a strict quantitative limit on the capacity that would be issued a Statement of Qualifications, or it could deeply discount the generation (e.g. only one third of the generation from these facilities would create RECs eligible for use for compliance with the Massachusetts RPS).

We strongly object to the continued inclusion of existing biomass plants in the Massachusetts RPS under any circumstances other than those described here.

DOER Should Not Redefine "Advanced Biomass Power Conversion Technology"

Considering consultation with individuals experienced with the combustion process and biomass fuel cycle, along with comments already provided to DOER on this matter, it is apparent that relying on net heat rate as a proxy for "advanced biomass power conversion technology" is unworkable. While a quantitative measure of advanced technology would be preferable, it is unclear whether such a standard exists. Therefore, UCS urges DOER to initially define "advanced biomass power conversion technology" as a technology that uses solid biomass fuel in a fluidized bed or gasification process. Consistent with legislative history, the definition should exclude stoker and pile burn technologies. Technologies other than fluidized bed or gasification would come before DOER for a case-by-case determination.

DOER Should Define "Low Emission" Targets For Biomass Starting With Table 2 And Using BACT Thereafter

UCS agrees with other commenters that the emission limits in Table 2 represent a good starting point for "low emission" targets for biomass. However, the standard for low emission must also reflect improvements in emission control technologies over time. Therefore, UCS recommends that the initial low emission standards for biomass facilities reflect those in Table 2 of the NOI. In addition, UCS recommends that Table 2 be amended to include the emission standards for HCl and toxic metals included in Table 3 to establish standards for facilities that use C&D fuel.

As we mentioned in our initial comments, emissions of heavy metals from the combustion of C&D waste are of great concern. For this reason we prefer policies that encourage the recycling of C&D waste. If there is no recycling option, however, C&D waste is acceptable as a fuel source if it meets the heavy metals standard expressed in Table 3 of the NOI as well as the standards expressed in Table 2.

To ensure that the Massachusetts RPS emission targets continue to reflect what is truly "low emission," DEP and DOER should establish a process for periodically updating the emission

limitations. This could be done through a generic BACT review at regularly scheduled intervals, such as 3 years. The effective date of any modification to the emission limitations should occur at some interval following the BACT review, say 2 years. Of course, these revised standards would only apply to plants built following the modification to the standard. Such an approach would provide sufficient notice of the effective date of the revised emission limitations to prospective biomass project developers.

Other Issues

In general, UCS is supportive of policies that encourage the cofiring of biomass fuels at fossil fueled plants. In particular, we would be interested in participating in a DOER-initiated process for establishing a sound and workable mechanism for such cofiring at coal plants in the Massachusetts RPS. However, we would like to convey our support for the points made by Conservation Law Foundation regarding the inappropriateness of Dominion proposals for eligibility of generating units meeting the emission limitations of 310 CMR 7.29 and broadening the definition of eligible biomass fuel. The request for a policy statement on carbon credits is also out of scope. In particular, with the current discussions regarding the Regional Greenhouse Gas initiative about the reliance on CO_2 emission reductions from RPS programs as a baseline condition, it is premature for DEP and DOER to independently address this complex and evolving issue.

Thank you again for the opportunity to provide you with our reply comments. We look forward to the timely resolution of the questions you have posed.

Sincerely,

/s/
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